

A NEW SPECIES OF PANICUM (GRAMINEAE)
FROM MOLOKAI.
HAWAIIAN PLANT STUDIES 42

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On the north shore of Molokai Island, Hawaiian Islands, at Moomomi, there is a charming sandy beach. Since the trade winds sweep from the sea across the beach, dry sand grains are blown inland. Behind the beach they have formed an extensive area of sand dunes. Also the sands have been blown two miles inland and upland to the southwest to the divide at 600 feet altitude, and two miles beyond it down the western slope. Well inland the smaller dunes are more or less stabilized and the geologists call them consolidated calcareous dunes. All of this area is interesting botanically, and in it the native beach and psammophytic floras are well preserved. The present paper adds one species to its flora.

Gramineae

Panicum moomomiense sp. nov. (Fig. 1).

Diagnosis Holotypi: Plantae aggregatae vel solitariae (aspectu herbae annuae) 4-14 cm altae, erectae plerumque basi ramosae culmis simplicibus (raro supra ramosis); internodia 6-32 mm longa adpresse adscendente albo-pilosula vaginae 8-23 mm longae nervis multis parallelis elevatis glabris sed intervallis adscendente albo-puberulis; ligula albo-pilosa ad margines pilis 2 mm longis, ad centrum pilis 0.3-0.4 mm longis; folia basalia laminis 23-25 mm longis; folia caulina laminis 13-37 mm longis 0.8-1 mm latis sed forte involutis et primo viso 0.3-0.4 mm latis, supra dense adscendente albo-pilosa infra nervis parallelis glabris sed intervallis minutissime adscendente albo-puberulis; panicula terminalis 1.3-2.5 cm longa 2-3 mm lata exserta et 8-38 spiculas ferens, ramis paucis adpresse adscendentibus; rhachis rami et pedicelli adscendente albo-pilosi; pedicelli 0.5-3 mm longi; spiculae 1.2-1.5 mm longae glabrae

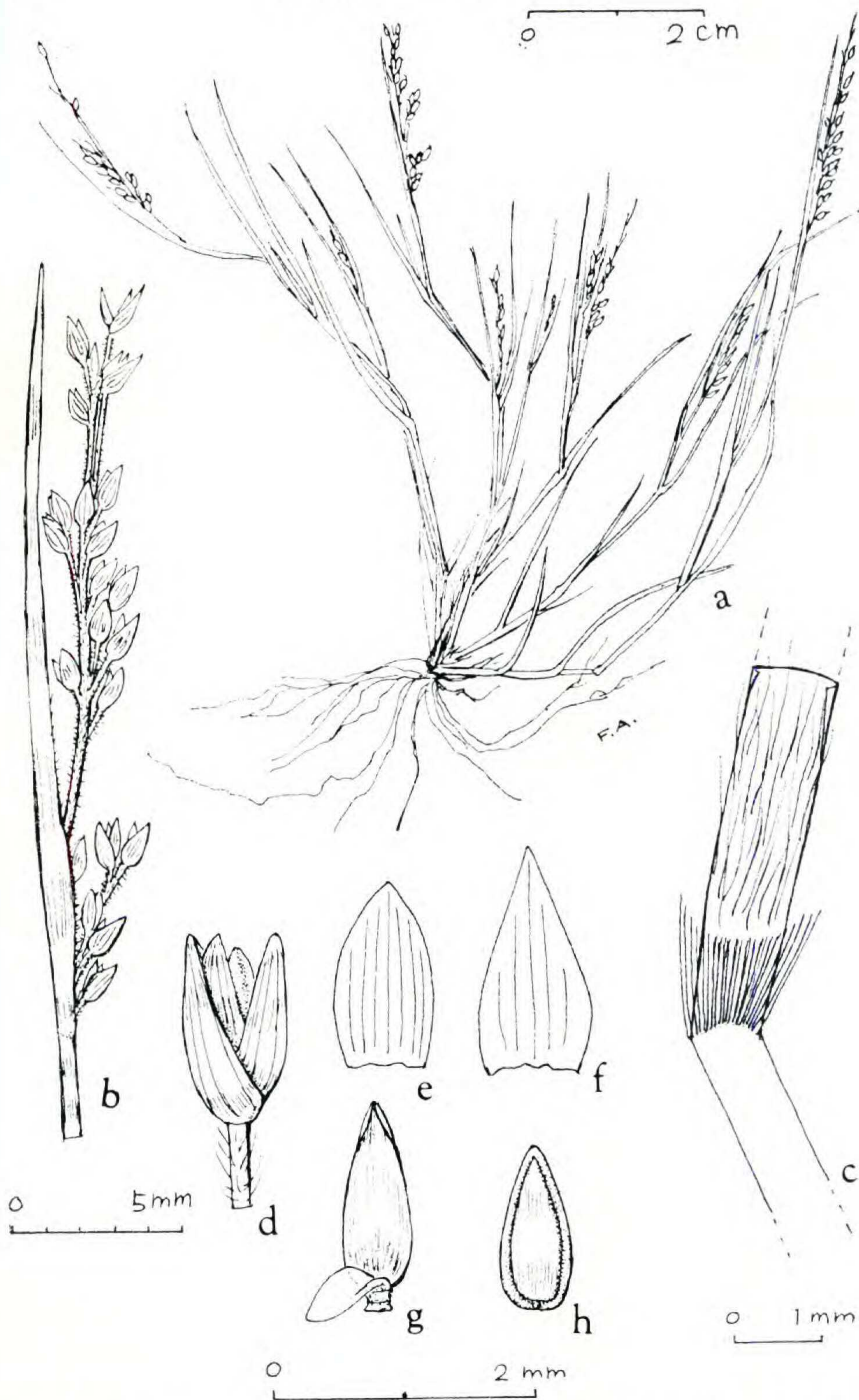


Fig. 1. *Panicum moomomiense* St. John, from holotype. *a*, habit, $\times 1$; *b*, inflorescence, $\times 4$; *c*, tip of sheath, ligule, and base of blade, $\times 10$; *d*, spikelet, $\times 15$; *e*, first glume, $\times 15$; *f*, second glume, $\times 15$; *g*, sterile lemma, $\times 15$; *h*, fertile lemma and palea, $\times 15$.

ellipsoideae acutae; gluma prima 1.2-1.4 mm longa, alias bracteas florales paulo excedens, ovata 5-nervosa nervis 3 centralibus elevatis obscure viridibus apicem forte attingentibus apiceque convergentibus et latere quoque nerva subtili apicem non attingenti; gluma secunda 0.9-1 mm longa ovata 7-nervosa; lemma sterilis 0.8-0.9 mm longa elliptica indistincte 5-nervosa; lemma fertilis 0.8 mm longa elliptica cartilaginea involuta 7-nervosa; palea 0.7-0.8 mm longa elliptica cartilaginea pallida; antherae 0.4 mm longae aurantiacae; stigmata obscure purpurea.

Diagnosis of Holotype: Plants in small tufts or single, (and appearing like an annual), 4-14 cm tall, erect, mostly several branched at base and the culms simple, (rarely branched above); internodes 6-32 mm long, appressed ascending white pilosulous; leaf sheaths 8-23 mm long, enclosing and concealing the culm, with numerous parallel raised glabrous nerves, but the concave intervals white ascending puberulous; ligule white pilose, at the margins with hairs 2 mm long, pilosulous, and the center with hairs 0.3-0.4 mm long; basal leaves with blades 23-55 mm long; cauline leaves with blades 13-37 mm long, 0.8-1 mm wide, but tightly involute and appearing 0.3-0.4 mm wide, above densely ascending white pilose, below with glabrous parallel nerves, but the intervals very minutely white ascending puberulous; panicle terminal, 1.3-2.5 cm long, 2-3 mm wide, exserted, bearing 8-38 spikelets, the few branches appressed ascending; rhachis, branches, and pedicels ascending white pilose; pedicels 0.5-3 mm long; spikelets 1.2-1.5 mm long, glabrous, ellipsoid, acute; first glume 1.2-1.4 mm long, slightly exceeding the other floral scales, ovate, 5-nerved, the 3 central ones raised, dark green, running strongly to and converging at the apex, on each side with one more lateral nerve, weak and not reaching the apex; second glume 0.9-1 mm long, ovate, 7-nerved; sterile lemma 0.8-0.9 mm long, elliptic, faintly 5-nerved; fertile lemma 0.8 mm long, elliptic, involute, 7-nerved, cartilaginous; palea 0.7-0.8 mm long, elliptic, cartilaginous, pale; anthers 0.4 mm long, orange; stigmas dark purple.

Holotypus: Hawaiian Islands, Molokai Island, Moomomi, limestone sand dune, 1 mile s. w. of beach, Jan. 21, 1973, Noah Pekelo Jr. 18 (BISH).

Specimens Examined: Hawaiian Islands, same data, Jan. 1, 1973, Pekelo 8 (BISH). Ilio Pt., sandy gravel, 2/28/74, Pekolo 30 (BISH).

Discussion: This new species is most closely related to *Panicum Fauriei* Hitchc. of Molokai and Hawaii, a species with the culms puberulent, branched at all the nodes, 10-15 cm tall; ligule a ciliate membrane with hairs nearly 1 mm long; cauline blades 2-5 cm long, flat or more or less involute, above appressed villous, below appressed hispidulous; spikelets 2 mm long; first and second glumes equal, lanceolate; second glume 5-nerved; sterile lemma 1.4 mm long, 5-nerved; fertile lemma 1.5 mm long. *P. moomomiense* has the culms ascending pilosulous, 4-12 cm tall, unbranched except at base; ligule white pilose, at the margins with hairs 1 mm long, and at the center with hairs 0.3-0.4 mm long; cauline blades 1.3-3.7 cm long, tightly involute; spikelets 1.2-1.4 mm long; first glume 1.2-1.4 mm long, ovate; second glume 0.9-1 mm long, ovate, 7-nerved; sterile lemma 0.8 mm long, 7-nerved; fertile lemma 0.8-0.9 mm long.

The writer has been unable to find a published section of the genus with characters that would include those of this species.

The new epithet is formed from the name of the type locality, Moomomi, and *-ense*, the Latin adjectival place ending.

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